

Notice of Allowability

Application No.

09/885,725

Applicant(s)

LYNGSTADAAS ET AL.

Examiner

Anand U. Desai, Ph.D.

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to June 4, 2007.
2. ☒ The allowed claim(s) is/are 29-37, 39-54 and 56-67.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 20070604
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 4, 2007 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on June 4, 2006 is being considered by the examiner.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dr. Therese Hendricks on August 31, 2007.

Examiner's amendment to the claims:

29. (Currently Amended) A method of promoting one or more of regeneration of secondary dentin, [[or]] formation of reparative dentin, or formation of osteodentin in a mammal,

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the method comprising administering to exposed vital dental pulp tissue of said mammal an active enamel substance comprising enamel matrix proteins selected from the group including one or more of enamelines, amelogenins, amelins, ameloblastin, sheathlin, tuftelins, dentinsialoprotein, and dentinsialophosphoprotein ~~or parts of such proteins~~ in an amount sufficient to promote one or more of regeneration of secondary dentin or formation of reparative dentin or formation of osteodentin.

34. (Currently Amended) The method of claim 29, further comprising the step of applying a filling material to the exposed vital dental pulp of said mammal following a dental procedure involving exposure of the mammal's vital dental pulp tissue.

37. (Currently Amended) The method according to claim 29, wherein the active enamel substance is an enamel matrix, ~~an enamel matrix derivative,~~ or an enamel matrix protein.

38. (Cancelled).

41. (Currently Amended) The method according to claim 29, wherein the active enamel substance has a molecular weight of ~~at most about 60 kDa to~~ at most about 120 kDa, as determined by SDS electrophoresis.

55. (Cancelled).

57. (Currently Amended) The method according to claim 56, wherein the aggregates have a molecular weight ~~particle size~~ from about 5 kDa to about 40 kDa, as determined by SDS electrophoresis.

Allowable Subject Matter

4. Claims 29-37, 39-54, and 56-67 are allowed.

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5. The following is an examiner's statement of reasons for allowance: the prior art does not describe the method of promoting regeneration of secondary dentin, formation of reparative dentin, or formation of osteodentin in a mammal, the method comprising administering to exposed vital dental pulp tissue of said mammal an active enamel substance comprising enamel matrix proteins selected from the group including one or more of enamelines, amelogenins, amelins, ameloblastin, sheathlin, tuftelins, dentinsialoprotein, and dentinsialophosphoprotein. The prior art disclose the use hyaluronic acid for formation of reparative dentin (cited Sasaki and Kido in office action mailed October 3, 2005), and inorganic enamel matrix material, such as calcium hydroxide (cited Cox et al. and Kiba et al. in office action mailed March 2, 2007).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand U. Desai, Ph.D. whose telephone number is (571) 272-0947. The examiner can normally be reached on Monday - Friday 9:00 a.m. - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Kathleen Kerr Bragdon can be reached on (517) 272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 31, 2007

AD
/Anand Desai/
Patent Examiner
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KATHLEEN KERR BRAGDON, PH.D.
SUPERVISORY PATENT EXAMINER